

CLAIMS

1. An illuminator for a flat-panel display, comprising a tapered slab waveguide (1) co-extensive with the display, a light source (2-4) arranged to inject light into an edge of the waveguide so that it emerges over the face of the waveguide, and means for scanning the light injected into the wedge.
- 10 2. An illuminator according to claim 1, in which the light source consists of addressable rows of elements, and the scanning means includes a circuit for addressing these rows.
- 15 3. An illuminator according to claim 2, in which the light from the elements is collimated into the display waveguide by a cylindrical mirror (5).
4. An illuminator according to claim 2, in which the light from the elements is collimated into the display waveguide by a further waveguide (8).
- 20 5. An illuminator according to any of claims 2 to 4, in which the elements are LEDs.
- 25 6. An illuminator according to any preceding claim, further including a sheet (6) for guiding the emerging light towards the normal to the display waveguide.
- 30 7. A display comprising an illuminator according to any preceding claim, used as a backlight, and a flat-panel modulator over the display waveguide.
- 35 8. A display according to any claim 7, in which the modulator is a liquid-crystal display.

9. A display according to claims 2 and 8, in which the scanning addressing circuit is synchronized with the row addressing circuit of the LCD.